

REMARKS

Applicant argues over the Examiner's rejection and submits an affidavit in support of his arguments. Applicant appreciates the Examiner's consideration in extending an interview to discuss the pending claims.

103 Rejection

The Examiner has rejected claims 1-20 over LaBate in view of Soofi. The Examiner combines the overlapping panels of LaBate and the adjustable frame of Soofi to arrive at the claimed invention. Applicant reiterates his arguments from his reply of 09 December 2008. In addition, Applicant submits an affidavit from Robert Foss that distinguishes the present invention from the prior art and any combinations thereof.

The Examiner argues one skilled in the art would have considered obvious the combination of an adjustable frame with overlapping panels. Applicant believes the cited references cannot be combined as suggested by the Examiner and, if combined, could not operate as the present invention. The combination of elements in the present invention produces an unexpected and desirable result.

The claims of the present invention describe at least two adjustable panels capable of relative movement when an adjustable strut is adjusted. Mr. Foss explains that the strut can be adjusted in situ, that is, when the apparatus is within a metallurgical vessel. This feature permits the apparatus to be dimensioned for the particular metallurgical vessel in which the apparatus is placed. The resulting thickness of the resultant refractory lining can be precisely controlled by fine tuning the dimension of the apparatus within the vessel.

The Examiner argues that both LaBate and Soofi can be adjusted. LaBate teaches a plurality of pre-formed panels 11 fixed to a rigid frame 12 comprising “steel angles welded to one another at their points of engagement to form a rigid structure.” Col. 2, lines 26-28. The welded structure and pre-formed panels are then lowered into a metallurgical vessel. Clearly, the welded “rigid structure” of LaBate cannot be adjusted in situ.

While Soofi does describe an adjustable form, the form 30 includes a flexible consumable form 32 wrapped around an adjustable frame 40. “The consumable form 32 can be constructed of any flexible, lightweight porous material.” Col. 3, line 41-42 (emphasis added). The claims identify the consumable form as “an open-mesh screen.” Mr. Foss explains that adjusting the frame in situ would either tear the consumable form or produce creases in it. Neither situation is permissible if a suitable lining is to be created in the vessel. In contrast, the present invention includes overlapping panels that slide past one another. The integrity of the lining shape is preserved while allowing for adjustment of the apparatus in situ.

Applicant believes the panels and adjustable frame of the present invention produce a result that is not found in the prior art or their combination. “[T]he improvement is more than the predictable use of prior art elements according to their established functions.” *KSR v. Teleflex*, 550 U.S. 398, 127 S.Ct. 1727, 82 USPQ2d 1385 (2007), at 1396. Neither LaBate nor Soofi teach or suggest rigid panels that are capable of relative movement once placed in a metallurgical vessel.

Applicant respectfully requests cancellation of the rejection and allowance of claims 1-20.

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Respectfully submitted,

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